Embracing the Power of Cloud Computing with ClearPath®

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ClearPath® Software Series

Software Series Overview

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ClearPath® Software Series Highlights

Leverage

Deployment Choices

vmware

Microsoft Azure

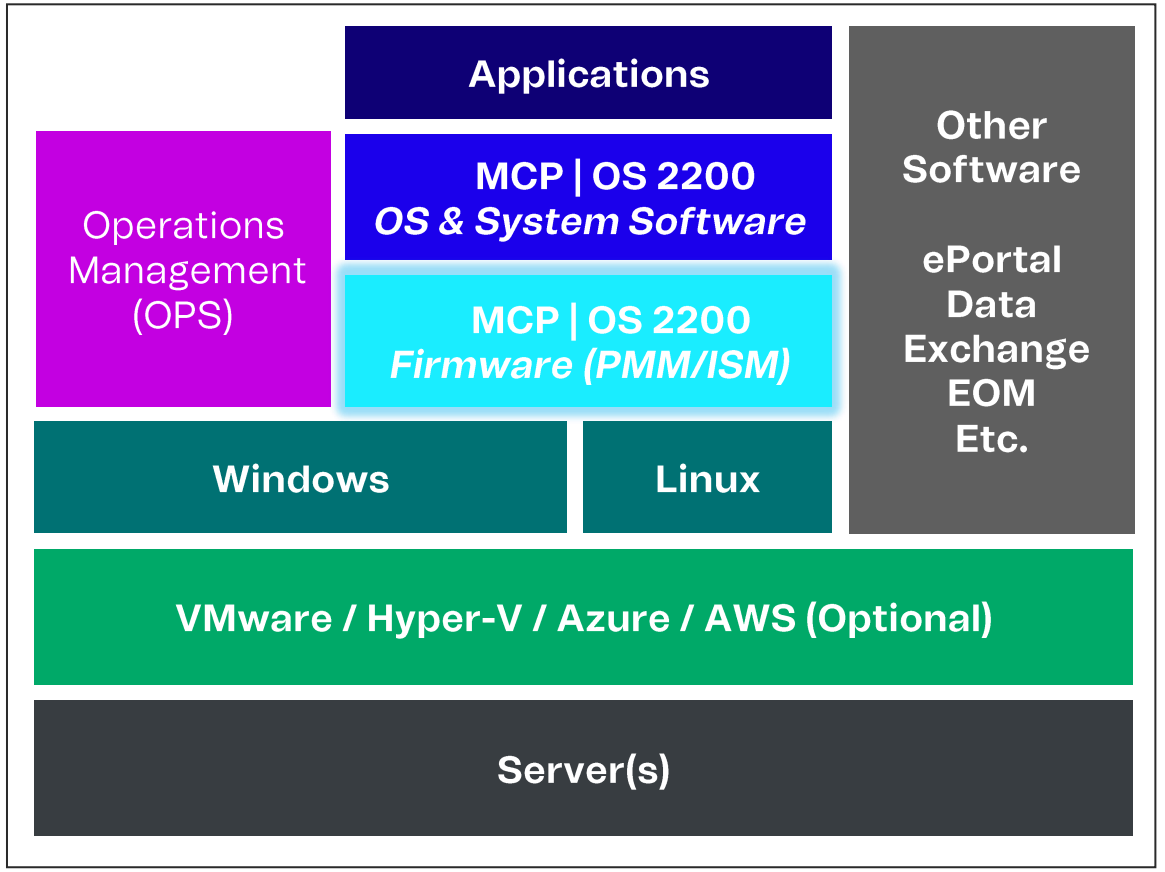
Microsoft Hyper-V

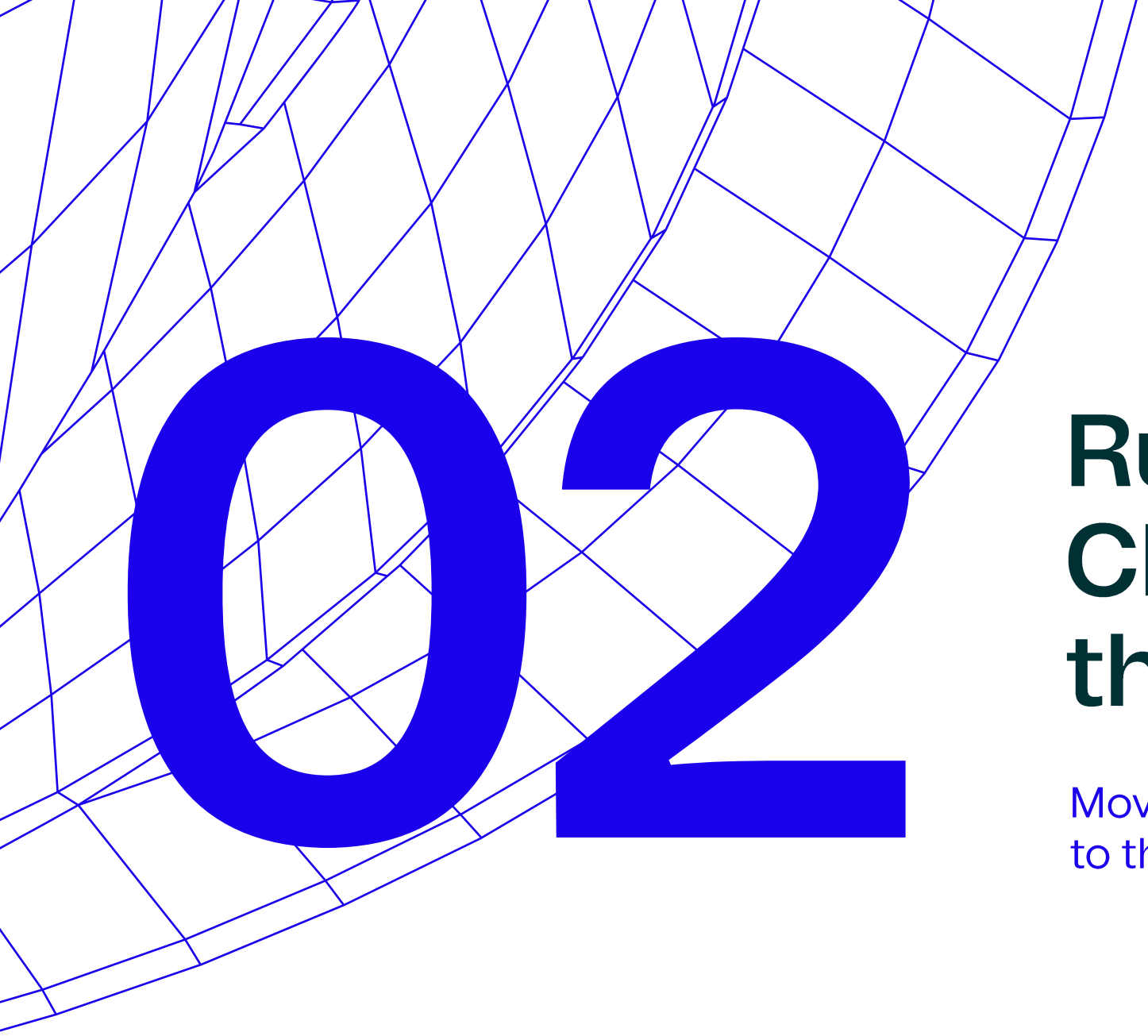
MCP Only

aws

MCP: 2024
OS 2200: 2025

Software Series Architecture





Running ClearPath® on the Public Cloud

Moving your ClearPath® Environment to the Cloud

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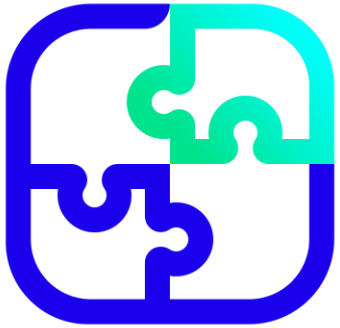
Why do you want to move to the cloud?

Cost Savings



Integration / Resiliency

Strategic Direction

Good News: Everything just runs – no code conversion*

Things to Consider:

Data

- OK to move data offsite?
- Regulations, Auditors
- Policies, etc.
- Encryption
  - Data-at rest
  - Data-in-motion

Management

- Who is doing the cloud / CPF ops / admin?
  Access to the systems/data?
- Are you using CSP?
- Rules or regulations about Contractors, Off-Shore, etc.
- Added security restrictions

Access

- Getting to/from Azure/AWS (End users / Clients / Public)?
- Directly connected to the Internet
- Via your Intranet
- Understanding the security implications, monitoring, etc.

Performance

What you need to know

Selecting a Virtual Machine:

Azure VM
AWS EC2 Instance

Requirements / Recommendations are in the:
Software Series Compatibility Guide
Software Series Best Practices Guide

Google:
Unisys MCP Compatibility Guide 5.0
Unisys MCP Best Practices Guide 5.0
Unisys OS 2200 Compatibility Guide 3.0
Unisys OS 2200 Best Practices Guide 3.0

Ex: Must be INTEL Xeon not AMD or Graviton

Required/Recommended: Cores, Memory, Settings, ...

Question: What is my performance requirement?

New VM are rolled out over time.

Selecting the right disk types, sizes options, etc..

Defined in the Compatibility / Best Practices Guides

- In the cloud: DISK PERFORMANCE = MONEY!!!!
- Disk type and size will affect performance (Latency, IOPS, Throughput)
- Do you need replication: Asynchronous / Synchronous?
- Consider: Production, Dev/Test, and VTL Storage

Buzz words for later:

AZURE:
Managed Disk - Premium, Premium v2, Bursting, VM Cache, LRS, ZRS, ASR

AWS:
EBS - gp3, io2, DRS

Security and Network

What you need to know

Security Considerations

Use MFA to access Azure or AWS Portals / Role Based Access

Protect the Windows (MCP) or Linux (OS 2200) vNIC / IP Address on the ClearPath Software Series VM

Limit access to ClearPath Management and Administration

Zero Trust: Compile list of Port / IP Address Pairs to allow

Are All Network Connections Encrypted?

Consider OS Data at Rest Encryption (Disk / File / Database)

Consider a Cyber Recovery Vault

Chart of VM + Storage + Network - MCP

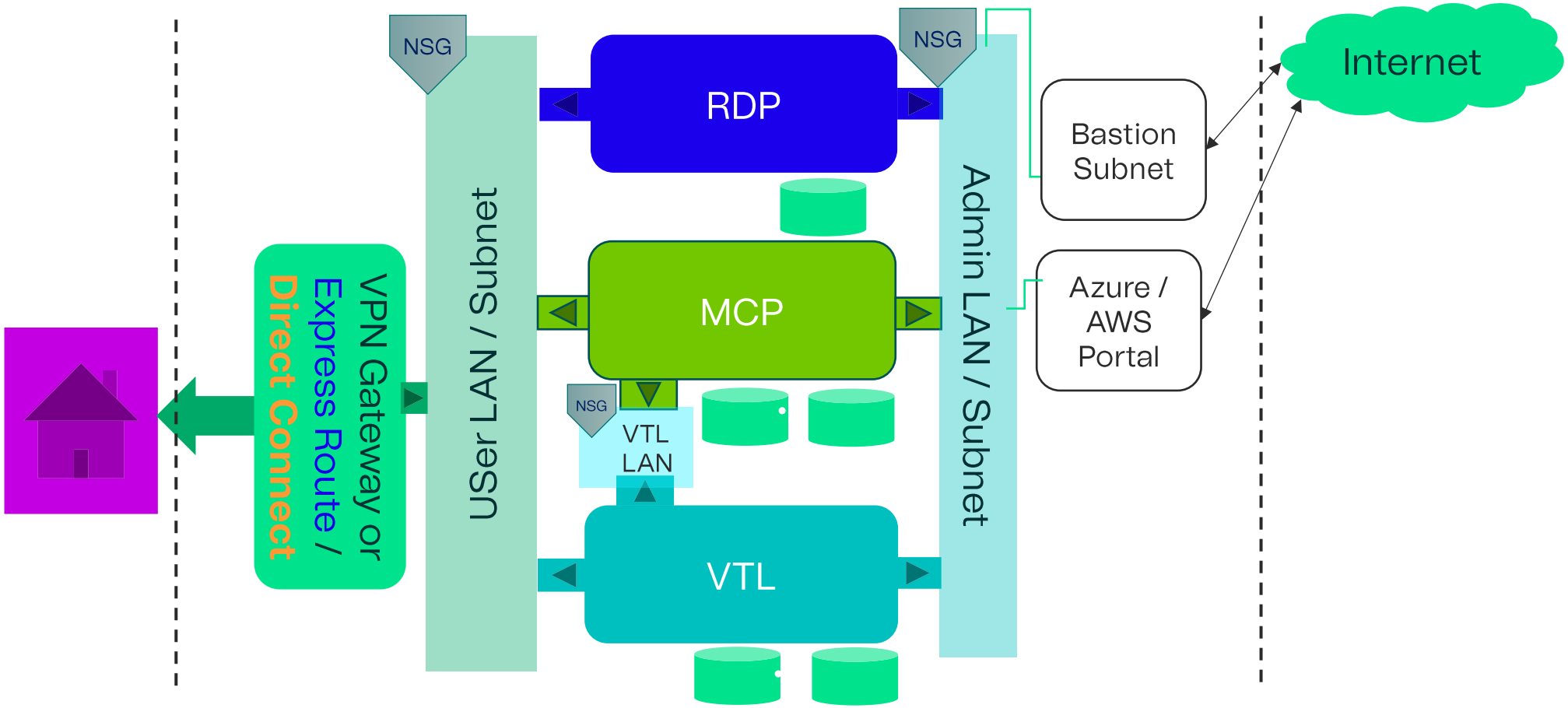
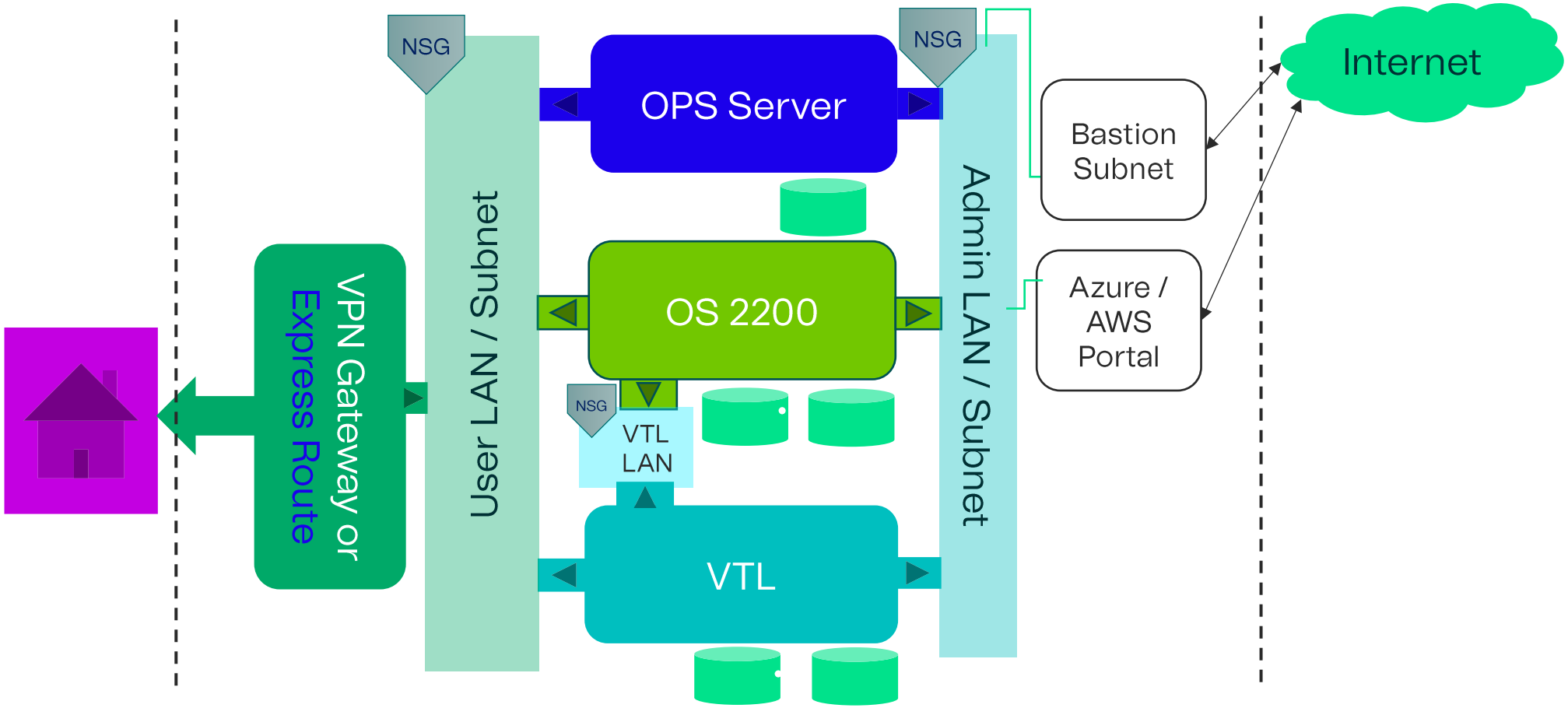


Chart of VM + Storage + Network – OS 2200



High Availability and Disaster Recovery

What you need to know

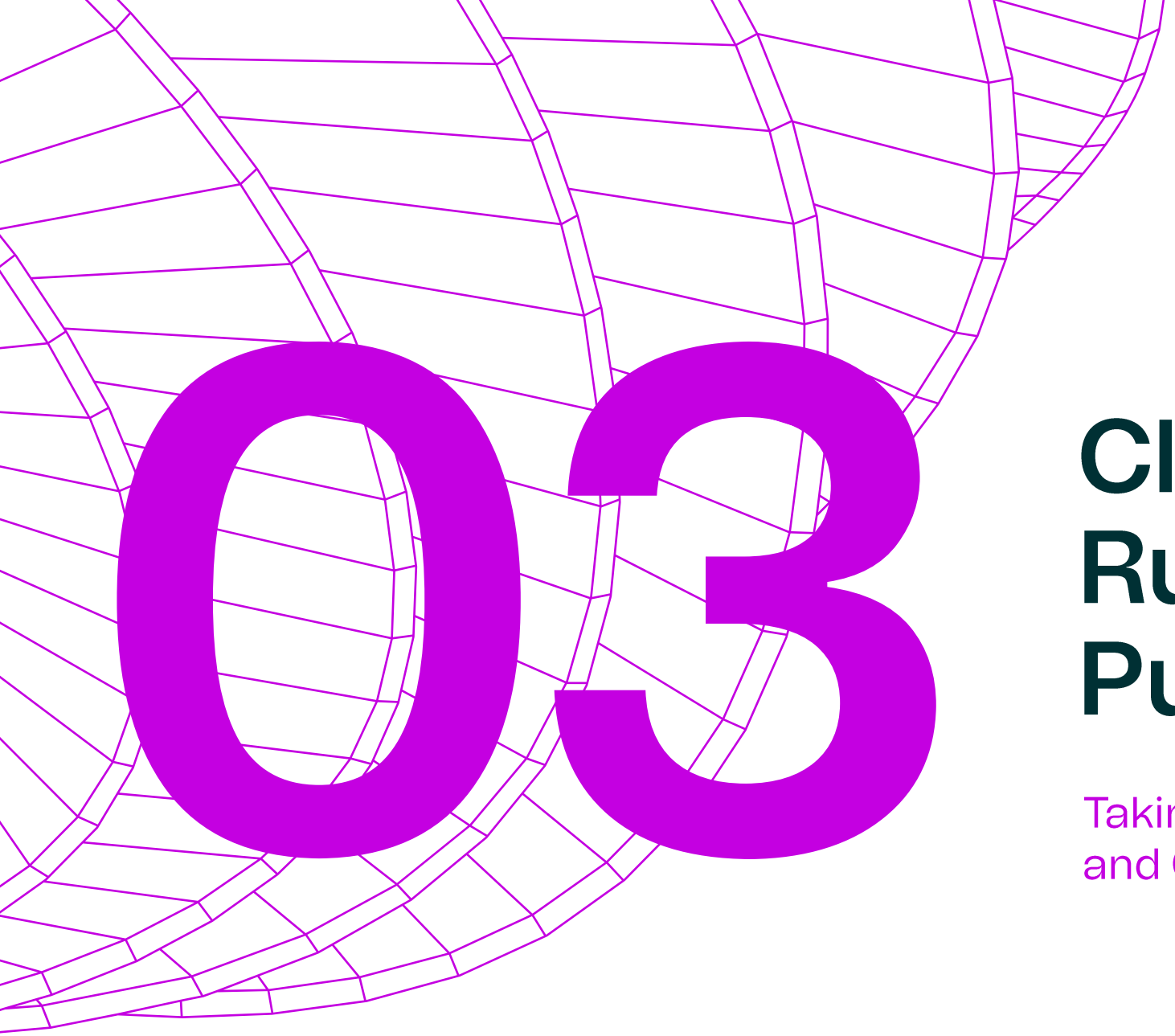
Setting up for HA and DR Recommendations & Experience

HIGH AVAILABILITY

- Cloud Infrastructure naturally comes with HA
  - Azure and AWS: VM SLA: 99.95%
  - Azure and AWS will move a VM from failed Hardware to another server, potentially proactively
  - With the right storage, it is highly reliable:
    - Azure: Premium SSD, Premium SSD v2 (11 – 9's)
    - AWS: io2 - 99.999% availability

DISASTER RECOVERY

- A secondary Region for DR Failover
  - Automated Tooling with Asynchronous Replication:
    - Azure: ASR (MCP now, OS 2200 soon)
    - AWS: DRS (MCP now, OS 2200 in 2025)
- Azure: ZRS (Premium SSD or Standard SSD)
  - Synchronous replication across Availability Zones in a single region
  - Can be combined with ASR



ClearPath® Running *in* the Public Cloud

Taking advantage of Cloud Services and Cloud Capabilities

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Client Experiences Integrating CPF *in* the Cloud

Azure Infrastructure Services	• Azure Sentinel, Defender, Log Analytics, Network Watcher, Azure Backup
Cyber Recovery Vault	• Build immutable backup copies in Cloud • Data Validation
AB Suite	• Azure DevOps Service (Free with VS Subscription) • Temporary AB Suite Build Server to install and test new AB Suite Versions / IC / etc.
Developer Studio	• No need to lose Development/Test in a DR event • Spin up / Spin Down for testing – Templates (Easier in future releases - Licensing)
ClearPath ePortal	• Native Cloud Implementation (Example: uses Scale Sets) • Web Services via REST API
Data Exchange	• Azure Event Hub via Kafka (DE 8.0)
Enterprise Output Manager (DEPCON)	• Create PDFs, Web Pages, Email

Unisys ClearPath® Services Cloud Services

How we can help

Guiding you through your Cloud Journey

Cloud Advisory Services

Cloud Transition Services

Cloud Management Services

Questions

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